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COUNTRY AND INTERCOUNTRY PROGRAMMES AND PROJECTS

PROJECT RECOMMENDATION OF THE ADMINISTRATOR

Assistance for a global project

International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) - West African Sorghum and Millet Improvement Programme (Phase III) (GLO/81/002)

Estimated UNDP contribution:	$5 900 000
Duration:	Five years
Executing Agency:	UNDP

I. Background

1. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) was constituted by the Consultative Group on International Agricultural Research (CGIAR) in 1972 with a view to improving the yields of five principal crops (namely, sorghum, millet , chick-peas, pigeon-peas and ground-nuts) in the semi-arid tropics which cover a wide belt of Asia, Africa, Latin America and Australia. These crops are grown in a harsh environment of depleted soils, erratic rainfall and sparse or no irrigation by small farmers with very limited resources. ICRISAT has a special

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* This document will be derestricted upon approval of the project. See document DP/526 which will be issued in June 1981.

mandate for research in farming systems, socio-economic constraints and transfer of technology for the seasonally dry semi-arid tropics in order to catalyze a breakthrough in the agricultural production of the region.

2. From its inception, ICRISAT has been receiving substantial assistance from UNDP for the improvement of sorghum and millets which are grown extensively in the semi-arid tropics as staple food crops because they are able to withstand dry conditions. To date, UNDP assistance amounting to over $13 million has been effectively utilized for research on these two crops, mostly at the ICRISAT headquarters in India, although in the last five years considerable resources have been channelled to a co-operative programme in selected West African countries. A three-year first phase of this programme, with an earmarking of $2,495,000, was approved by the Governing Council at its nineteenth session in January 1975.1/ Subsequently, at its January 1978 meeting, the Governing Council approved a second phase of assistance for a further three-year period in the amount of $3,180,000.2/ Even though ICRISAT is relatively young, it has made major advances in the collection and exchange of germplasm of the crops concerned and in the screening, testing and breeding of these crops for resistance to pests, diseases and environmental stresses. Many of these techniques are already being used extensively in India and Africa.

3. The UNDP/ICRISAT African Co-operative Programme which began in January 1975 is a vital companion piece to basic research on sorghum and millets being carried out at ICRISAT headquarters in India with substantial UNDP financial assistance since 1972. The main objective of the African Co-operative Programme, which was conceived soon after the Sahel drought, is to: (a) co-operate with and strengthen existing West African agricultural research programmes to develop higher-yielding varieties of sorghum and millets and to introduce appropriate technologies to achieve consistent and reliable yields; and (b) to train large numbers of national personnel in all aspects of production and research on sorghum, millets and companion crops as well as in related areas of farming systems to make maximum use of available soil, water and other resources.

4. Initially, the project covered 12 countries from Senegal to Chad, including nine French-speaking and three English-speaking countries. In 1977, Sudan was included in the project, following a request from that country's Government for technical assistance. Implementation of the project has proceeded steadily. Initial problems of logistic support and formulation of acceptable agreements were overcome with the assistance of the UNDP Resident Representatives in each of the co-operating countries. The main co-operating station for the project is at Kamboinse near Ouagadougou, Upper Volta. To date, considerable progress has been made in co-operative testing on sorghum and millets related to varietal testing and farming systems research in association with other crops under different management practices. Local germ-plasm of sorghum and millet has been collected and evaluated and exotic germ-plasm has been introduced and distributed to co-operating countries. Some promising results with sorghum have been achieved. Sources of disease resistance in millet have been identified. Good co-operation has been developed between ICRISAT and national scientists in all countries. Large numbers of personnel from the co-operating countries have received training at varying levels, mostly at ICRISAT headquarters and also on the job in West Africa.

1/ DP/PROJECTS/R.3/Add.2.
2/ DP/PROJECTS/R.9/Add.1.

5. While the project has made steady progress and is receiving enthusiastic moral and material support from the participating Governments as well as complementary assistance from bilateral donors, it is evident that in view of the dearth of adequately qualified and trained personnel and material resources in many of the countries concerned, a long-term commitment is needed from all concerned, including external donors, to place national research programmes on a self-reliant basis. In view of the fact that the current UNDP project is scheduled for completion in October 1981, ICRISAT has approached UNDP for a third phase of assistance for a period of five years.

6. The progress and accomplishments of the ICRISAT African Co-operative Programme financed by UNDP were scrutinized in December 1980 by a mission of two independent consultants appointed by UNDP. This mission complimented ongoing work and strongly endorsed the proposal for continuation of UNDP assistance for a further five-year period to permit the expansion of the research and testing activities, together with the enlargement of an intensified training programme to benefit, in particular, those countries where agricultural research systems are still weak. The research and training programmes sponsored by UNDP form an essential and indispensable part of a larger effort of several bilateral and multilateral agencies which are providing substantial inputs of seeds, fertilizers, pesticides and agricultural implements, together with additional technical assistance, to help build up national capabilities in increasing food production in the concerned West African countries.

II. The Project

7. The main objective of the third phase project is to consolidate the work done in the first two phases and to continue an expanded and intensified research and training programme for the improvement of sorghum and millets in several countries of Africa.

8. Specific objectives of the research, testing and training programmes are as follows:

(a) Development of an expanded genetic base of sorghum and millet cultivars from West Africa through assistance to national programmes in collection of germplasm and provision of materials from the large ICRISAT collections of over 19,000 and 12,000 strains of sorghum and millets respectively;

(b) Testing and evaluation of varieties adapted to different agro-ecological conditions through multilocation testing of specific varieties selected from local as well as outside materials available from ICRISAT headquarters in India and other national programmes;

(c) Evaluation of materials showing better yield potential, adaptability, superior grain quality and resistance to pests, diseases and weeds, in particular to Striga (witch weed);

(d) Evaluation of elite varieties in hybridization programmes to develop and test sorghum hybrids with good yield potential;

(e) Development of improved agronomic research, including farming systems through research into improvement of soil fertility and efficient soil and water management to maximize utilization of limited quantities of available rain water;

(f) Study of the interactions of cropping systems, including rotation and the intercropping of sorghum and millets with food legumes, as well as the economics of these systems to maximize the benefits to the small farmer;

(g) Provision of consultants and modest equipment and supplies to selected national institutions to enhance the effectiveness of their participation in the project; and

(h) Development of an expanded training programme, at varying levels, to national staff of all co-operating countries in the afore-mentioned activities.

9. The Administrator intends, through contractual arrangements between ICRISAT and UNDP, to entrust the implementation of this project to ICRISAT, with the clear understanding that the Directorate of ICRISAT will seek the advice of the Food and Agriculture Organization of the United Nations (FAO). As in the past, UNDP will follow closely all the developments in this global project and, together with FAO, will participate in the project advisory committee which will be established for the project. This committee normally will meet once a year to appraise ongoing project activities and to advise on its future direction. Specialists from other international centres will be invited, as appropriate, to serve on this committee.

10. Midway in the course of the project, UNDP, in consultation with ICRISAT, might decide to schedule an evaluation of project activities. Such an evaluation, if needed, could be undertaken by a team of 2-3 independent consultants in conjunction with one of the project advisory committee meetings mentioned in paragraph 9. In any event, towards completion of the project, a thorough evaluation of its results and accomplishments will be mounted by UNDP in consultation with ICRISAT, to be carried out by independent consultants.

11. The expenditure component of the proposed UNDP assistance is:

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Subcontract	$5,700,000

12. The expenditures under the project will be contained within the Indicative Planning Figure established by the Governing Council for global projects.

III. Recommendation

13. The Administrator recommends that:

The Governing Council,

(a) Approve this project; and

(b) Authorize the Administrator to make the appropriate arrangements with ICRISAT for the execution of this project.